Executive Summary Introduction: RomoCom, Inc. (Broadband Specialists, Inc.) (BSI) (see organizational chart) believes we must stop thinking about broadband in terms of being a digital divide, & start thinking about broadband in terms of being the digital solution. Broadband in rural communities is a tool of empowerment that we can embrace & employ to help rural communities close the achievement gap they suffer today. We frequently talk about rural, un-served & underserved areas in our country as being "passed over", which makes them truly "last mile". If instead, we view these populations as "first mile" contributors to information & knowledge utilizing a "smart pipe", rather than as passive consumers only, it shifts our perspective & creates even greater urgency to connect them to a dynamic future-proof expandable network. For true education & economic development, broadband must be more than a hand held device. Upon funding, BSI is ready to begin construction immediately. This network is engineered & designed. The network contains over 15,000 11X17 maps. Tower & HUB sites are chosen, fiber routes surveyed, permitting has been identified to expedite the process, BOM's & vendor orders are prepared, & labor & equipment is lined out & ready to go. This project is shovel-ready. Analysis: The BSI Southwest MS Broadband Network is to make service available to 46,279 unserved & remote residential end-users that reside in unserved areas of Claiborne, Jefferson, Adams, Amite, Wilkinson and Franklin Counties, the proposed Funded Service Area (FSA). The FSA serves 72 distinct remote communities. The FSA consists of 3928 contiguous census block areas. The FSA contains 21,997 single family households with 17,575 occupied, 449 businesses, 25 public safety facilities, (1) nuclear power facility & 185 community anchor institutions (CAI). Network access to municipal, county & public safety will be discounted a minimum of 30%. Conservatively, it is estimated there will be ███ subscribers at 3-years & ███ after 5-years ███. Economy: The current economic situation in this six (6) county region is grim. As Chart A illustrates (see supplement), in 2007 the U.S. census showed that the percentage of families living below the poverty rate in the U.S. was thirteen (13%) percent & in MS it was twenty (20%) percent, rising from sixteen (16%) percent in 2000. However, in the six (6) county region that makes up the proposed FSA, the percentage of families living below the poverty level is a combined average of twenty-six (26%) percent! Chart B illustrates (see supplement), the economic losses are even more dramatic. While non-farm employment in the U.S. grew +5% during the period of years 2000 - 2006, Jefferson County saw a decrease in employment of a whopping twenty-five (25%) percent![1]

Network, Economic Development & Job Creation: The three are inexplicitly linked. MS has the highest number of families living in poverty in the U.S.[2] Jefferson Co. has the highest percentage of families living in poverty in MS.[3] Three of the counties in this rural FSA rank in the nine (9) highest percentage of families living in poverty in MS. This is one of the most impoverished remote areas in the nation.[4] The future economic vitality of the region dictated the network architecture BSI has chosen. ███

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███ This fiber connectivity will provide local economic development officials an important tool they need to attract new businesses to the region. In Claiborne County in 2008, there were five (5) factory

closings representing over four hundred fifty (450) jobs lost.[7] This fiber connectivity will allow existing businesses the bandwidth capacity that they need to expand current operations, add locations. Future profits from operations will capitalize deployment of fiber deeper into the network with the end goal being eventual FTTH, FTTC & FTTP. Adequate optimized fiber and dark fiber capacity will allow for immediate economic development. Fiber download speeds can be ██████ and upload speeds can be ██████. At the furthest extremities, advertised wireless download speeds of ████ & upload speeds of ██████. Close in download speeds can be as high as █████. These high speeds and connectivity to the most remote corners of the network service areas will allow officials to attract executives to relocate to the area. A leading sport & historical destination, broadband will stimulate tourism. It is estimated the network will cost $35,643,923.00 & construction will employ █████████████ people directly or indirectly over the two-year construction period. The completed six (6) county FSA will employ a minimum of ████████ full-time personnel to operate. The jobs will be professional, technical, IT, warehouse, & administrative. <u>Public Safety:</u> Grand Gulf Nuclear Power Station, located in Claiborne Co., is the largest boiling water reactor in the U.S.[8] To facilitate implementation of the MEMA Emergency Planning Zone (EPZ) Plan should it be activated in an emergency, the network will support interoperable communications between local & state authorities including FEMA, the State Emergency Operations Center (SEOC) in Jackson, MS Department of Transportation (MDOT), MS Emergency Management Authority (MEMA), & the MS National Guard STARC. All or part of all six (6) counties in the FSA is included in the EZP.[9] This fully open access network will facilitate 4.9 GHZ interoperable communications by local public safety officials & will also support interoperable communications with federal agencies. The network will support NG911 deployment & CCTV monitoring in high crime areas, school zone, parking lot, intersection, correctional institution & traffic flow management. <u>Education:</u> Provide children content & capacity & they will get results. Access to a high quality, basic education is the first step toward being a contributing citizen. It is essential to uplift communities in disadvantaged areas from the grip of poverty. MS ranks lowest (50th) of the fifty States in percentage of population of 25 years of age & older with a high school graduation. MS ranks forty fifth (45th) lowest in the nation in percentage of population of 25 years & over that make it past ninth (9th) grade.[10] BSI is fully aware of the adoption challenges ahead this level of poverty presents.[11] Because of this, BSI has been preparing an adoption strategy since February, 2009. Not only is a quality education crucial, it is the very foundation upon which our nation's future rests. Children are a critical part of the BSI broadband community adoption strategy. A primary function of this network is to support distance learning. We must provide children in MS a technology-enriched learning environment. Students in disconnected geographic areas do not have access to collaborative communication technologies essential for retention & development of educational institutions, healthcare organizations, government agencies & corporations. Distance learning provides students advanced placement, dual credit, remediation, elective courses & supplemental classes. True equity in education, healthcare & business opportunities means bringing access to all wherever their communities & homes may exist. We must be certain the networks support learning

technologies so the inequities gap in educational opportunities can be narrowed. To support MEMA EPZ at times of extreme emergencies such as pandemic, terrorist attack, nuclear disaster (Grand Gulf Nuclear Station is located in the network service area) or a natural disaster, schools can be easily converted into triage centers by first responders utilizing distance learning video conferencing systems. Telemedicine: This network supports telemedicine in the home, hospitals & schools. The expansion and deployment of broadband services provides patients in rural, remote and/or un-served or underserved geographic areas access to physicians and specialists when local resources are not available. Through the use of two-way interactive video conferencing, store-forward & tele-monitoring technology, physicians are able to do remote clinical assessments and monitoring, and prescribe time sensitive and often life saving treatment protocols: **Tele-Cardiology** can be utilized for diagnostics & treatment; **Tele-Stroke** utilizes MRI images sent via broadband to determine whether patient is a candidate for the time sensitive t-PA drug treatment protocol; **Tele-Psychiatry** can provide prescribed sessions from a remote facility; **Tele-Dermatology** can send high resolution epidermis images to a remote oncologist or wound care specialist; **Tele-Obstetrics** can provide remote prenatal care & monitor high risk pregnancies; **Tele-Home Monitoring** for Alzheimer's, congestive heart failure, diabetic & chronic wound care patients, whom can all be monitored remotely by placing devices in the home that regularly monitor patient stats & behavior; **Electronic Medical Records** can be sent to EMT technician's enroute to an accident. BSI actively supports deployment of Telemedine & E Health systems at hospitals & clinics in the FSA. Conclusion: This public/private partnership will deploy this future-proof broadband network in a non-discriminatory & fully-inclusive manner that meets or exceeds all of the goals as set forth in the 2009 ARRA. It will bring medical care cost savings, support smart grid, bring less isolation, better well being, provide access to information, help consumers earn income longer, provide web 2.0 tools for electoral activity, provide for less drain on Medicare & disability payments, bring workplace flexibility, jobs & public safety to rural MS in the BSI FSA.